Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of surface treatment in a substantially downstream position of a plasma source to substantially be free from an undesirable influence of a reactive species from the plasma source, where an object to be processed is downstream from the plasma source, the method comprising generating a plasma discharge including a gas-C, the gas-C comprising a Gas-A molecule including essentially hydrogen as an element and a Gas-B including essentially [[a]] a halide; wherein said plasma discharge is substantially free from an oxygen bearing species; and wherein the Gas B is selected from hydrogen chloride or hydrogen bromide; wherein Gas C comprises a flow rate defined as a ratio of an amount of hydrogen in Gas-B to that in Gas-A is larger than 1/480.

2. (Original) The method of claim 1 further comprising injecting a Gas-D in the downstream of the plasma of Gas-C to treat the object comprising a surface in a downstream position of the Gas-D injection.

3. (Canceled)

4. (Canceled)

5. (Previously Presented) The method of claim 1, wherein Gas-B does not contain an oxygen atom.

6. (Canceled)

7. (Canceled)

8. (Canceled)

PAGE 8/18 * RCVD AT 1/26/2004 9:39:27 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:6503262422 * DURATION (mm-ss):04-02

9. (Original) The method of claim 2, wherein gas containing silicon as its element is used as Gas-D.

10. (Original) The method of claim 2, wherein gas containing carbon as its element is used as Gas-D.

11. (Original) The method of claim 2, wherein gas containing fluorine as its element is used as Gas-D.

12. to 20. (Canceled)

21. (Original) The method of claim 1 wherein the method is provided to substantially prevent physical damage caused by a high energy particle.

22. (Canceled)

23. (Currently Amended) A method of surface treatment in a substantially downstream position of a plasma source, where an object to be processed is downstream from the plasma source, the method comprising generating a plasma discharge including a gas-C, the gas-C comprising a Gas-A molecule including essentially hydrogen as an element and a Gas-B ~~including essentially a halogen and a hydrogen bearing species~~; wherein said plasma discharge is substantially free from an oxygen bearing species; and wherein the Gas B is selected from at least a chlorine, bromine, iodine, or fluorine; wherein Gas C comprises a flow rate defined as a ratio of an amount of hydrogen in Gas-B to that in Gas-A is larger than 1/480.

24. (Previously Presented) The method of claim 23 further comprising injecting a Gas-D in the downstream of the plasma of Gas-C to treat the object comprising a surface in a downstream position of the Gas-D injection.

25. (Previously Presented) The method of claim 23 wherein Gas-B does not contain an oxygen atom.

PAGE 9/18 * RCVD AT 1/26/2004 9:39:27 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:6503262422 * DURATION (mm-ss):04-02

26. (Previously Presented) The method of claim 23 wherein gas containing silicon as its element is used as Gas-D.

27. (Previously Presented) The method of claim 23 wherein gas containing carbon as its element is used as Gas-D.

28. (Previously Presented) The method of claim 23 wherein gas containing fluorine as its element is used as Gas-D.

29. (Previously Presented) The method of claim 23 wherein the method is provided to substantially prevent physical damage caused by a high energy particle.